
Building Career Pathways into Stem Cell Research and Therapy Development

Grant Award Details

Building Career Pathways into Stem Cell Research and Therapy Development

Grant Type: Bridges

Grant Number: EDUC2-12730

Project Objective: This program provides stem cell training for up to 8 students per year (undergraduate or other level) at CCSF. Training includes coursework, patient engagement opportunities, outreach activities, and a 10 month internship at host labs around the Bay Area. Training culminates with completion of a biotechnology certificate.

Investigator:

Name: Carin Zimmerman

Institution: City College Of San Francisco

Type: PI

Award Value: \$2,706,200

Status: Active

Grant Application Details

Application Title: Building Career Pathways into Stem Cell Research and Therapy Development

Public Abstract:

The proposed project will build on a robust stem cell technician training program already in place at the home institution, expanding and enhancing student training with a translational focus through the implementation of 8 internship experiences each year as well as a range of other support activities.

Specifically, the proposed project will:

- Offer full-time internships to 8 students each year in CIRM-funded research laboratories or industry labs working on translational stem cell research. Participating laboratories include both academic and industry labs throughout the region. Intern trainees will be recruited from the pool of students who have completed a series of cell culture courses at the home institution and will engage in a ten-month internship for which they will earn college credit.
- Offer a stem cell techniques course that will prepare trainees to begin their internship experiences.
- Mentor trainees through 2 four-unit independent study courses in both the fall and spring semesters.
- Augment and update all existing cell culture courses with cutting-edge information, techniques, and equipment, including coursework regarding drug and therapy development compliance and regulations.
- Build a network that allows research scientists in the field the opportunity to be guest lecturers and/or teach a laboratory to enhance the learning experience of the students in our program.
- Engage a Project Director whose long-term experience in molecular biology and cell culture research will fully qualify her to implement the proposed project.

The proposed program will greatly enhance the training of future stem cell laboratory personnel by augmenting the existing community college program with hands-on experience at an academic or industry laboratory over a ten-month period. Students participating in this internship will gain a robust set of skills that will allow them to enter the workforce and make a substantial contribution to stem cell research. Furthermore, by enhancing partnerships between the home institution and regional academic and industry laboratories, the proposed project will pave the way for future student training and professional development activities for faculty members.

Statement of Benefit to California:

The proposed program will benefit the state of California and its citizens by providing high-quality training to a cadre of future stem cell research technicians, with a focus on translational research. Over the five-year funding period, the proposed program will greatly enhance the training of future stem cell laboratory personnel by augmenting the existing community college program with hands-on experience at an academic or industry laboratory over a ten-month period. Students participating in this internship will gain a robust set of skills that will allow them to enter the workforce and make a substantial contribution to stem cell research. Furthermore, by enhancing partnerships between the community college and regional academic and industry laboratories, patients, and local high schools, the proposed project will pave the way for future student training, professional development activities for faculty members, and much more.

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